No. 9400173

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Delta and Pine Land Company

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED, PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'DP 3570'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this thirty-first day of October in the year of our Lord one thousand nine hundred and ninety-five.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

FORM APPROVED: OMB 0581-0055, Expires 1/31/91

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) *(as it is to appear on the Certificate)*	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NO.	3. VARIETY NAME
Delta and Pine Land Company	DPX3570	DP 3570

4. ADDRESS *(street and no. or R.F.D. no., city, state, and ZIP)*	5. PHONE *(include area code)*
100 Main Street Scott, Mississippi 38772	(601) 742-3351

FOR OFFICIAL USE ONLY

PVPO NUMBER: 9400173

FILING — Date: May 18, 1994; Time: ☐ A.M. ☐ P.M.

FEES RECEIVED — Filing and Examination Fee: $2,325.00 Date: May 13, 1994; Certificate Fee: $300.00 Date: August 8, 1995

6. GENUS AND SPECIES NAME	7. FAMILY NAME *(Botanical)*
Glycine max	Leguminosae

8. CROP KIND NAME *(Common Name)*	9. DATE OF DETERMINATION
Soybean	1989

10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION *(Corporation, partnership, association, etc.)*

Corporation

11. IF INCORPORATED, GIVE STATE OF INCORPORATION	12. DATE OF INCORPORATION
Delaware	October 19, 1978

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS

Dr. Harry Collins
P. O. Box 157
Scott, Mississippi 38772

PHONE *(Include area code)*: (601) 742-3351

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED *(Follow INSTRUCTIONS on reverse)*

- a. [X] Exhibit A, Origin and Breeding History of the Variety
- b. [X] Exhibit B, Novelty Statement.
- c. [X] Exhibit C, Objective Description of Variety.
- d. [X] Exhibit D, Additional Description of Variety.
- e. [X] Exhibit E, Statement of the Basis of Applicant's Ownership.
- f. [X] Seed Sample (2,500 viable untreated seeds). Date Seed Sample mailed to Plant Variety Protection Office _____
- g. [X] Filing and Examination Fee. (2,325) made payable to "Treasurer of the United States."

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? *(See section 83(a) of the Plant Variety Protection Act.)*

☐ YES *(If "YES," answer items 16 and 17 below)* ☒ NO *(If "NO," skip to item 18 below)*

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?

☐ YES ☐ NO

17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?

☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.?

☐ YES *(If "YES," through* ☐ Plant Variety Protection Act ☐ Patent Act Give date _____)

☒ NO

19. HAS THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES?

☐ YES (If "YES," give names of countries and dates)

☒ NO

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in section 41, and is entitled to protection under the provisions of section 42 of the Plant Variety Protection Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT *(Owner(s))*	CAPACITY OR TITLE	DATE
J. Grover Shaw	Midsouth Soybean Breeder	May 7, 1994
SIGNATURE OF APPLICANT *(Owner(s))*	CAPACITY OR TITLE	DATE
Harry B. Collins	Vice President Director of Research	May 6, 1994

EXHIBIT A

DELTA AND PINELAND COMPANY'S APPLICATION FOR DP 3570

ORIGIN AND BREEDING HISTORY

1986-	Cross 86-133, A6785 x H6383 mad in Wilson, N.C.
1987-	F_1 grown in winter nursery and F_2 advanced to F_3 at Wilson, N.C.
1988-	F_3 advanced to F_4 in winter nursery and F_4 plants pulled at Wilson, N.C.
1989-	F_5 row 89-03749 was selected, composited and determined to be stable and breeding true for characteristics described in exhibit C of this application. No variants are known or have been observed.
1990-	Entered into Group V Prelim tests as 89-03749 at Wilson, N.C.
1991-92	Entered into Group V Advanced tests at 7 locations (1991) and 14 locations (1992) as 89-03749 (Key #2850). Seed increase was begun in 1991 and off-type plants were removed from seed stocks
1993-	Entered into Advanced tests as DPX 3570 (Key # 2850) at 12 locations
Spring, 1994-	DPX 3570 entered into State Experimental Station trials and continued Delta and Pine Land trials and released as DP 3570

EXHIBIT B

DELTA AND PINE LAND COMPANY'S APPLICATION FOR DP 3570

NOVELTY STATEMENT

To our knowledge, DP 3570 most resembles A 5979. DP 3570 differs from A 5979 but is not necessarily restricted to the following:

1) DP 3570 differs form A 5979 in that DP 3570 has purple flowers and A 5979 has white flowers.

2) DP 3570 is resistant to Meloidogyne incognita whereas A 5979 is susceptible.

3) DP 3570 is resistant to phytophthora root rot via hypocotyl inoculation and A 5979 is susceptible.

FORM APPROVED: OMB NO. 0581-0056

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT C
(Soybean)

PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MARYLAND 20705

OBJECTIVE DESCRIPTION OF VARIETY
SOYBEAN (Glycine max L.)

NAME OF APPLICANT(S)	TEMPORARY DESIGNATION	VARIETY NAME
Delta and Pine Land Company	DPX3570	DP3570

ADDRESS (Street and No., or R.F.D. No., City, State, and Zip Code)

100 Main Street
Scott, Mississippi 38772

FOR OFFICIAL USE ONLY

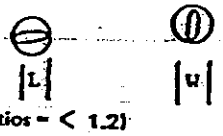
PVPO NUMBER

9400173

Choose the appropriate response which characterizes the variety in the features described below. When the number of significant digits in your answer is fewer than the number of boxes provided, place a zero in the first box when number is 9 or less (e.g., [0][9]). Starred characters ★ are considered fundamental to an adequate soybean variety description. Other characters should be described when information is available.

1. SEED SHAPE:

[2]



1 = Spherical (L/W, L/T, and T/W ratios = < 1.2)
2 = Spherical Flattened (L/W ratio > 1.2; L/T ratio = < 1.2)
3 = Elongate (L/T ratio > 1.2; T/W = < 1.2)
4 = Elongate Flattened (L/T ratio > 1.2; T/W > 1.2)

★ 2. SEED COAT COLOR: (Mature Seed)

[1] 1 = Yellow 2 = Green 3 = Brown 4 = Black 5 = Other (Specify) _____

3. SEED COAT LUSTER: (Mature Hand Shelled Seed)

[2] 1 = Dull ("Corsoy 79"; "Braxton") 2 = Shiny ("Nebsoy"; "Gasoy 17")

★ 4. SEED SIZE: (Mature Seed)

[1][2] Grams per 100 seeds

★ 5. HILUM COLOR: (Mature Seed)

[5] 1 = Buff 2 = Yellow 3 = Brown 4 = Gray 5 = Imperfect Black 6 = Black 7 = Other (Specify)

★ 6. COTYLEDON COLOR: (Mature Seed)

[1] 1 = Yellow 2 = Green

★ 7. SEED PROTEIN PEROXIDASE ACTIVITY:

[ ] 1 = Low 2 = High

★ 8. SEED PROTEIN ELECTROPHORETIC BAND:

[ ] 1 = Type A ($SP1^a$) 2 = Type B ($SP1^b$)

★ 9. HYPOCOTYL COLOR:

[3] 1 = Green only ("Evans"; "Davis") 2 = Green with bronze band below cotyledons ("Woodworth"; "Tracy")
3 = Light Purple below cotyledons ("Beeson"; "Pickett 71")
4 = Dark Purple extending to unifoliate leaves ("Hodgson"; "Coker Hampton 266A")

★ 10. LEAFLET SHAPE:

[3] 1 = Lanceolate 2 = Oval 3 = Ovate 4 = Other (Specify) _____

11. LEAFLET SIZE:

[2] 1 = Small ('Amsoy 71'; 'A5312') 2 = Medium ('Corsoy 79'; 'Gasoy 17')
3 = Large ('Crawford'; 'Tracy')

12. LEAF COLOR:

[2] 1 = Light Green ('Weber'; 'York') 2 = Medium Green ('Corsoy 79'; 'Braxton')
3 = Dark Green ('Gnome'; 'Tracy')

★ **13. FLOWER COLOR:**

[2] 1 = White 2 = Purple 3 = White with purple throat

★ **14. POD COLOR:**

[1] 1 = Tan 2 = Brown 3 = Black

★ **15. PLANT PUBESCENCE COLOR:**

[1] 1 = Gray 2 = Brown (Tawny)

16. PLANT TYPES:

[2] 1 = Slender ('Essex'; 'Amsoy 71') 2 = Intermediate ('Amcor'; 'Braxton')
3 = Bushy ('Gnome'; 'Govan')

★ **17. PLANT HABIT:**

[1] 1 = Determinate ('Gnome'; 'Braxton') 2 = Semi-Determinate ('Will')
3 = Indeterminate ('Nebsoy'; 'Improved Pelican')

★ **18. MATURITY GROUP:**

[0][8] 1 = 000 2 = 00 3 = 0 4 = I 5 = II 6 = III 7 = IV 8 = V
9 = VI 10 = VII 11 = VIII 12 = IX 13 = X

★ **19. DISEASE REACTION:** (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

BACTERIAL DISEASES:

★ [2] Bacterial Pustule (*Xanthomonas phaseoli* var. *sojensis*)

★ [0] Bacterial Blight (*Pseudomonas glycinea*)

★ [0] Wildfire (*Pseudomonas tabaci*)

FUNGAL DISEASES:

★ [0] Brown Spot (*Septoria glycines*)

Frogeye Leaf Spot (*Cercospora sojina*)

★ [1] Race 1 [ ] Race 2 [ ] Race 3 [ ] Race 4 [ ] Race 5 [2] Other (*Specify*) Races unknown

[1] Target Spot (*Corynespora cassiicola*)

[1] Downy Mildew (*Peronospora trifoliorum* var. *manshurica*)

[1] Powdery Mildew (*Microsphaera diffusa*)

★ [1] Brown Stem Rot (*Cephalosporium gregatum*)

[1] Stem Canker (*Diaporthe phaseolorum* var. *caulivora*)

19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant) (Continued)

FUNGAL DISEASES: (Continued)

★ [0] Pod and Stem Blight *(Diaporthe phaseolorum var. sojae)*

[0] Purple Seed Stain *(Cercospora kikuchii)*

[0] Rhizoctonia Root Rot *(Rhizoctonia solani)*

Phytophthora Rot *(Phytophthora megasperma var. sojae)*

★ [2] Race 1 [0] Race 2 [0] Race 3 [0] Race 4 [0] Race 5 [0] Race 6 [0] Race 7

[0] Race 8 [0] Race 9 [0] Other *(Specify)* _____

VIRAL DISEASES:

[0] Bud Blight (Tobacco Ringspot Virus)

[0] Yellow Mosaic (Bean Yellow Mosaic Virus)

★ [0] Cowpea Mosaic (Cowpea Chlorotic Virus)

[0] Pod Mottle (Bean Pod Mottle Virus)

★ [0] Seed Mottle (Soybean Mosaic Virus)

NEMATODE DISEASES:

Soybean Cyst Nematode *(Heterodera glycines)*

★ [2] Race 1 [0] Race 2 [2] Race 3 [ ] Race 4 [1] Other *(Specify)* Race 14

[0] Lance Nematode *(Hoplolaimus Colombus)*

★ [2] Southern Root Knot Nematode *(Meloidogyne incognita)*

★ [0] Northern Root Knot Nematode *(Meloidogyne Hapla)*

[2] Peanut Root Knot Nematode *(Meloidogyne arenaria)*

[0] Reniform Nematode *(Rotylenchulus reniformis)*

[2] OTHER DISEASE NOT ON FORM *(Specify)*: Sudden death syndrome

20. PHYSIOLOGICAL RESPONSES: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

★ [1] Iron Chlorosis on Calcareous Soil

[2] Other *(Specify)* High chloride soils

21. INSECT REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

[1] Mexican Bean Beetle *(Epilachna varivestis)*

[2] Potato Leaf Hopper *(Empoasca fabae)*

[ ] Other *(Specify)* _____

22. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant Shape	A5979	Seed Coat Luster	DP415
Leaf Shape	A5979	Seed Size	A5979
Leaf Color	A5979	Seed Shape	A5979
Leaf Size	A5979	Seedling Pigmentation	A5979

23. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD VARIETY: Paired Comparison Data

VARIETY	NO. OF DAYS MATURITY	PLANT LODGING SCORE	CM PLANT HEIGHT	LEAFLET SIZE		SEED CONTENT		SEED SIZE G/100 SEEDS	NO. SEEDS/ POD
				CM Width	CM Length	% Protein	% Oil		
DP3570 Submitted	130	2.2	76			36.7	17.7	12.0	
A5979 Name of Similar Variety	131	1.6	71			36.6	17.7	13.0	

PUBLICATIONS USEFUL AS REFERENCE AIDS FOR COMPLETING THIS FORM:

1. Caldwell, B.E., ed. 1973. Soybeans: Improvement, Production, and Uses. Amer. Soc. Agron. Monograph No. 16.

2. Buttery, B.R. and R.I. Buzzell. 1968. Peroxidase activity in seeds of soybean varieties. Crop Sci., 8: 722-725.

3. Hymowitz, T. 1973. Electrophoretic analysis of SBTI-A_2 in the USDA soybean germplasm collection. Crop Sci., 13: 420-421.

4. Payne, R.C. and L.F. Morris. 1976. Differentiation of soybean cultivars by seedling pigmentation patterns. J. Seed Technol. 1: 1-19.

EXHIBIT D

DELTA AND PINE LAND COMPANY'S APPLICATION FOR DP 3570

ADDITIONAL DESCRIPTION OF VARIETY

DP 3570 is an F_4 selection composited in the F_5 generation from the cross A 6785 X H 6383. It is being released because of its excellent performance in the upper midsouth and southeast plus resistance to root knot nematode and tolerance to SDS.

DP 3570 has purple flowers, grey pubescence and tan pods at maturity. Seeds have shiny seed coats with imperfect black hila averaging 4000 seeds per pound as compared to 3300 seeds per pound for DP 105. It has resistance to phytophthora root rot and Races 1 and 3 cyst nematode and frogeye leaf spot. It has shown tolerance to aerial blight, sudden death syndrome and high chloride soils.

DP 3570 has averaged 6% higher yield than DP 105 in the Southeast and 16% higher yield than DP 105 in the Midsouth areas north of I-40. It is 2 days earlier, 2 inches shorter and has similar standability compared to DP 105. It has shown best performance on sandy loam or silt loam soil types, but has not been as productive on heavy clays of the midsouth.

EXHIBIT E

DELTA AND PINE LAND COMPANY'S APPLICATION FOR DP 3570

STATEMENT OF APPLICANT'S OWNERSHIP

DP 3570 was originated and developed by Grover Shannon, Ph.D. and Thomas Wofford, Ph.D., Delta and Pine Land Company plant breeders. By agreement between employees and Delta and Pine Land Company, all rights to any invention, discovery or development made by an employee are assigned to the company. No rights to such an invention, discovery or development are retained by the employee.

SOYBEAN PRODUCT NOMINATION FORM

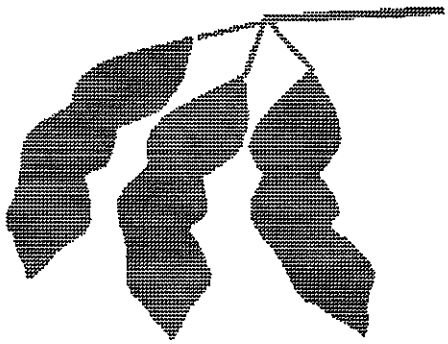
Suggested Nominee Number: DPX 3570

Experimental Designations: 89-03749

Submitted by: Grover Shannon (Project Leader)

Date Submitted: January 1, 1994

Parentage: A 6785 X H6383



Data Collected from 26 Replicated Yield Tests.

I. Plant & Seed Characteristics:

Flower Color:	Purple
Pubescence Color:	Grey
Hilum Color:	Buff
Pod Wall Color:	Tan
Seed Coat Luster:	Shiny
Leaf Shape:	Ovate
Plant Type:	Determinate
Peroxidase Activity:	

II. Agronomic Characteristics: 1992-93

Line	Mat.	Plant Height	Ldg.	Shat.	Seeds/ Lb.	% Pro.	% Oil
DP 3570 Nominee	-2	30	2.2	Exc.	4300	36.7	17.7
A 5979 Check	-3	28	1.6	Exc.	3900	36.6	17.7
DP 105 Check	0	32	2.1	Exc.	3200	37.3	18.8
HUTCHESON	-3	26	1.5	Exc.	3200	35.9	19.0

III. Yield Data:

1991-93 Yield & Agronomic Data Summary

Line	Yield	% Yield	Mat.	Hgt.	Ldg.
A 5979	49.4	107	-3	28	1.6
DP 3570	49.2	106	-2	30	2.2
HUTCHESON	47.6	103	-3	26	1.5
DP 415	46.8	101	-7	28	1.9
DP 105	46.3	100	0	32	2.1
# Tests	33	33	14	24	20

1993 Yield & Agronomic Data Summary

Line	Yield	% Yield	Mat.	Hgt.	Ldg.
HUTCHESON	50.1	107	-3	25	1.3
DPX 3570	49.5	106	-2	30	2.1
DP 415	48.9	104	-7	27	1.8
A 5979	48.6	104	-3	27	1.5
DP 105	46.9	100	0	31	1.9
# Tests	12	12	5	8	9

1992 Yield & Agronomic Data Summary

Line	Yield	% Yield	Mat.	Hgt.	Ldg.
A 5979	52.0	112	-4	26	1.5
HUTCHESON	51.1	110	-3	26	1.5
DPX 3570	50.1	108	-3	29	2.1
DP 415	47.5	102	-7	28	1.9
DP 105	46.5	100	0	31	2.2
# Tests	14	14	6	10	7

1991 Yield & Agronomic Data Summary

Line	Yield	% Yield	Mat.	Hgt.	Ldg.
DPX 3570	46.7	104	-1	32	2.5
A 5979	45.8	102	-1	30	2.1
DP 105	44.9	100	0	33	2.4
DP 415	41.7	93	-5	27	1.9
HUTCHESON	41.6	93	-4	26	1.7
# Tests	7	7	3	6	4

Yield Summary in Bu/A

By Region: 1991-93

LINE	MIDSOUTH						SOUTHEAST		OVERALL	
	N of I-40		S of I40		MEAN		YLD	% YLD	YLD	% YDL
	YLD	% YLD	YLD	% YLD	YLD	% YLD				
A 5979	56.4	116	50.0	107	50.3	108	47.4	104	49.4	107
DPX 3570	57.2	117	46.8	100	49.6	106	48.1	106	49.2	106
HUTCHESON	51.9	107	48.1	103	46.3	99	50.7	111	47.6	103
DP 415	52.3	107	46.9	100	47.2	101	45.8	101	46.8	101
DP 105	48.7	100	46.9	100	46.7	100	45.5	100	46.3	100
# TESTS	7	7	11	11	23	23	10	10	33	33

12

By States: 1990-92

LINE	TN	AR	MS	LA	NC	SC	VA	GA	MEAN
A 5979	52.9	52.7	49.2	47.1	43.5	49.5	42.6	61.1	49.4
DPX 3570	53.0	53.3	47.5	45.3	43.9	43.8	50.5	58.2	49.2
HUTCHESON	48.0	47.8	47.5	46.6	49.5	52.6	41.7	61.8	47.6
DP 105	44.5	48.3	46.2	47.2	42.1	44.7	39.9	60.0	46.3
# TESTS	5	6	6	6	5	1	2	2	33

By Soil Type Planting and Disease Situation: 1990-92

Line	Loam	Clay	SCN	Early Planted	Stem Canker	Root Knot	SDS	Aerial Blight
DPX 3570	53.9	41.8	50.9	43.7	-	43.8	55.6	47.2
HUTCHESON	52.5	41.8	44.9	44.1	-	52.6	43.6	52.8
A 5979	51.0	44.1	47.1	42.3	-	49.5	52.0	56.3
DP 105	48.9	43.6	45.3	42.1	-	44.7	33.2	53.4
# TESTS	14	8	4	4	-	1	1	1

1992-93 Head to Head Comparisons

DPX 3570 vs	Total Comp.	Won by-Bu/A	# Wins	% Wins
A 5979	33	-0.2	15	45
DP 105	33	+2.9	22	67
HUTCHESON	33	+1.6	20	61

YIELD IN BU/A
BY TESTS AND LOCATIONS

1993 - 355M

Line	MIDSOUTH								
	TN RP	TN UC	AR CD	AR DM	MS SL	MS SC	LA TL	LA MG	Mid-Sth Mean
HUTCHESON	48.2	51.2	57.4	41.1	47.7	46.2	40.6	65.9	49.8
DPX 3570	55.7	54.1	59.9	43.7	50.7	42.4	37.1	62.1	50.7
DP 415	50.1	56.4	51.5	42.4	47.1	43.2	41.6	62.6	49.4
A 5979	52.0	55.2	56.7	45.5	47.4	44.8	39.0	68.1	51.0
DP 105	47.0	49.7	56.5	44.2	46.7	43.8	38.9	63.2	48.8
# REPS	3	3	3	3	3	3	3	3	
C.V.	5.4	9.7	7.6		17.1	7.6	6.6	5.4	
LSD .05	4.5	5.9	5.3		13.8	5.6	4.4	5.4	

Line	SOUTHEAST					
	VA HL	NC CL	NC SF	GA PL	Sth-East Mean	Over All Mean
HUTCHESON	38.5	44.7	62.2	57.8	50.8	50.1
DPX 3570	43.9	34.5	50.2	59.7	47.1	49.5
DP 415	41.0	41.9	54.2	54.9	48.0	48.9
A 5979	32.9	34.5	51.4	56.4	43.8	48.6
DP 105	34.5	37.0	43.6	57.7	43.2	46.9
# REPS	3	3	3	3		
C. V.	13.1	13.0	13.6	5.7		
LSD .05	7.8	7.6	11.2	5.5		

YIELD IN BU/A
BY TESTS AND LOCATIONS

1992 - 255M

Line	MIDSOUTH										
	TN RP	TN UC	AR CD	AR BR	AR DM	MS SE	MS SL	MS SC	LA LP	LA MG	Mid-Sth Mean
A 5979	54.1	52.0	65.6	59.6	48.6	56.0	54.0	40.1	39.1	56.3	52.5
P 9592	58.8	46.8	60.7	48.8	52.4	55.1	51.6	46.7	39.1	55.9	51.6
DPX 3570	55.0	55.6	63.1	56.7	53.9	52.8	56.6	40.5	28.1	47.2	50.7
DP 415	50.2	50.3	58.1	49.2	46.3	48.3	56.1	42.7	30.0	55.6	48.7
HUTCH.	53.7	43.6	56.5	52.8	46.1	52.2	57.4	44.6	34.9	52.8	47.5
DP 105	49.8	33.2	54.6	49.8	47.8	52.5	50.1	40.0	35.3	53.4	46.7
C. V.	10.1	18.1	7.8	5.4	14.1	7.2	7.1	5.9	14.1	9.0	
LSD .05	8.8	9.8	5.9	4.7	7.9	6.3	6.2	4.1	7.9	7.8	

Line		SOUTHEAST				
	VA HL	NC CL	SC OR	GA PL	Sth-East Mean	Over All Mean
A 5979	52.3	35.0	49.5	65.7	50.6	52.0
DPX 3570	57.1	33.8	43.8	56.6	47.8	50.1
P 9592	47.1	38.0	42.4	56.5	46.0	50.0
HUTCH.	44.9	41.1	52.6	65.7	51.1	48.5
DP 415	47.5	37.7	34.7	57.7	44.4	47.5
DP 105	45.2	32.4	44.7	62.2	46.1	46.5
LSD .05	9.4	9.7	13.7	5.2		
C.V.	11.6	17.3	20.3	5.4		

1991 - 154A

	MIDSOUTH						SOUTHEAST			
Line	TN RP	AR DM	MS SC	LA LP	LA MG	Mid-Sth Mean	NC CL	NC KN	Sth-East Mean	Over All Mean
DPX 3570	44.4	42.4	41.6	43.9	53.5	45.2	51.0	50.0	50.5	46.7
A 5979	51.2	40.0	52.6	46.6	33.7	44.8	41.0	55.4	48.2	45.8
DP 105	42.9	37.1	44.1	38.5	54.2	43.4	49.8	47.8	48.8	44.9
DP 415	42.2	32.9	40.6	41.3	46.2	40.7	45.5	42.9	44.2	41.7
HUTCHESON	43.3	33.1	36.4	43.0	35.7	40.6	48.8	50.8	49.8	41.6
C. V.	14.1	10.4	13.3	9.0	11.6		12.5	12.7		
LSD .05	9.8	6.4	9.2	6.0	8.8		9.5	9.7		

IV. DISEASE REACTION AND OTHER INFORMATION:

Cyst Nematode

DPX 3570 is resistant to Races 1 and 3 of Cyst Nematode and has shown tolerance to other races. In greenhouse screening it has tested susceptible to Race 14.

	Race 3		
	1992	1992	1993
	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
DPX 3570	8 0 0 0 0	7 0 0 0 0	5 2 0 0 0
Forrest	9 2 0 0 0	6 0 0 0 0	7 0 0 0 0
Essex	0 0 0 4 9	0 0 0 0 7	0 0 0 2 5
Location:	Scott, MS 1992	Jackson, TN 1992	Jackson, TN 1993

Conducted by: Grover Shannon, Grady Robinson - Scott, MS
Dr. L. Young, USDA, Nematologist - Jackson, TN

	Race 14	
	1992	1992
	1 2 3 4 5	1 2 3 4 5
DPX 3570	2 2 2 2 0	0 0 0 1 6
Forrest	0 1 6 1 0	0 0 0 1 5
Bedford	9 0 0 0 0	5 1 0 0 0
DP 105	0 0 2 9 0	- - - - -
Location: 1992	Scott, MS	Jackson, TN 1992

Conducted by: Grover Shannon and Grady Robinson - Scott, MS
Dr. L. Young, USDA, Nematologist - Jackson, TN

Root Knot Nematode 1 = No galling 5 = Very severe galling

DPX 3570 is resistant to common root knot and moderately resistant to peanut root knot.

		Common Root Knot M. Incognita		Peanut Root Knot M. arenaria		
		1992[1]	1992[2]	1993[2]	1992[2]	1993[2]
DPX 3570		1.0	0.0	1.0	3.0	3.5 Res.
Check	1.3	0.0	1.5	2.0	2.5	
Sus. check		3.7	3.0	5.0	5.0	5.0
Location:		Orangeburg, SC [1]		Jay, FL [2]		

Conducted by: Dr. Cindy Green, Chris Daniels
Dr. Robert Kinloch, Nematologist, University of Florida

Stem Canker 1 = No symptoms 5 = Very severe symptoms

DPX 3570 is moderately resistant to Stem Canker.

	1990	1991	1993
DPX 3570	1.5	1.5	1.0
A 5979	2.5	2.5	2.5
HUTCHESON	1.5	1.5	2.5
DP 105	2.0	1.5	2.0

Location: Scott, MS - Hill Plots

Conducted by: Grover Shannon and Grady Robinson

Frogeye Leaf Spot 1 = None 5 = Very Severe

DPX 3570 reaction to Frogeye Leaf Spot is probably resistant.

Sudden Death Syndrome 1 = None 5 = Very Severe

DPX 3570 is moderately tolerant to sudden death syndrome.

	1992
DPX 3570	1.2
A 5979	1.0
DP 105	3.2
HUTCHESON	2.7
DP 415	2.2

Location: Union City, TN
Conducted by: Grover Shannon

Aerial Blight 1 = None 5 = Very Severe

DPX 3588 is moderately resistant to Aerial Blight.

	1992
DPX 3570	2.0
A 5979	2.3
DP 105	3.0
HUTCHESON	3.3

Location: Morganza, LA

Conducted by: Grover Shannon

Herbicide Tolerance

DPX 3570 has no known sensitivity to common soybean herbicides when used as directed. It is found to have normal tolerance to Metribuzin.

Chloride Tolerance

DPX 3570 is reaction appears to be tolerant to high chloride.

Seed Stock

There are 91 bushels of DPX 3588 Foundation Seed.